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Recruiting Women to STEM Programs

You hear the words “computer geek” and who comes to mind: Bill Gates? Steve Jobs? Mark Zuckerberg? If colleges want to increase enrollments in STEM programs, a change in student perceptions of professionals in the field may be in order. Asheville-Buncombe Technical Community College (A-B Tech) has completed the third year of a National Science Foundation Advanced Technological Education [grant](#) titled “Skilled Workers Get Jobs: Recruiting Women and Retaining ALL Students,” aimed at tackling student misperceptions about STEM careers.

In identified STEM programs at [A-B Tech](#), the number of female students has increased from 39 to 82 students in three years. These programs include: Computer Engineering Technology, Computer Information Technology, Electronics Engineering Technology, Information Systems Security, Mechanical Engineering Technology, and Networking Technology.

A new approach to marketing and recruitment has had a direct impact on female enrollment.



A “[Picture Yourself](#)” branding campaign was launched to combat the notion that many women do not see themselves in STEM professions. Studies show that men often select careers based on pay and the technology they will use. Women, however, select careers in which they can help others, work in teams, and solve problems. Studies show these skills are highly valued for STEM professionals. Project Principal Investigator Pamela Silvers frequently tells students that when employers contact her for a reference, their primary concern is whether students can work well in teams and with others. Silvers now emphasizes these employability skills in updated program marketing materials including display boards, posters, program sheets, and bookmarks.

After the new marketing materials were created it became very important to consider how and where potential students would be recruited. Silvers says colleges often attend events such as a middle school career day and then later wonder why enrollment has not increased. For the NSF grant, the focus was placed on meeting potential students who were ready to attend community college.

Silvers regularly attends the local ASPIRE program, a partnership between A-B Tech and WorkFirst in which students learn the fundamentals of seeking, securing, and keeping a job, and overall wellbeing. Student Ryan Smith wrote “I entered the ASPIRE program thinking I would get a job in the service industry upon completion. But one day, Pamela Silvers walked into the class and gave a presentation about picturing ourselves with a different future and changed my goals. When she discussed a future in Information Technology she hit a chord with me. I like computers, I like helping people, and a degree that would pay a livable wage for me and my children would be amazing.” Ryan is now completing her second year in A-B Tech’s Computer Information Technology program.

A-B Tech also offers an Innovative Expo each June to allow high school counselors and instructors to learn more about the college’s STEM programs. Participant comments such as “This was a wonderful opportunity to learn about variety of STEM programs. I am so glad I was chosen to be a part of this day,” and “I learned so much” are common.

While the project has made significant strides in STEM recruitment, it also has focused efforts on providing workplace relevance through problem-based learning to help engage and retain students once enrolled in STEM programs.

Silvers says the next step is to expand the project to other programs as well as to other colleges. To do so, the team has submitted a follow-on NSF proposal to continue its work. To learn more about the project, contact Pamela at pamelajsilvers@abtech.edu